Claim Amendments

Please cancel claim 21 and amend claim 1 and claim 10 as follows:

1. (Currently amended) A method for molding an ophthalmic lens comprising:
(a) providing a first mold part having a front curve molding surface for the ophthalmic lens;
(b) providing a second mold part having a back curve molding surface for the ophthalmic lens;
(c) extruding a melt-processable polymer;
(d) cutting a sample from the extruded polymer;
(e) depositing the sample in the first mold part;
(f) moving the first and the second mold parts together to form a mold cavity between the opposing front curve molding surface and back curve molding surface with the polymer therebetween, the mold cavity defining a shape of an ophthalmic lens having a variable volume between a first volume and a second volume, the second volume being greater than the first volume, wherein the mold parts have sufficiently small clearance such that gas escapes from the mold cavity and none of the polymer escapes from the mold cavity;
(g) squeezing the mold parts together with a predetermined force; (h) allowing the polymer to solidify and form a lens, wherein said sample is in the form of a pellet having a length (L) and a diameter (D) in a L/D ratio of ~~between 0.1 and 10.0;~~ between 0.2 and 5;
(i) opening the mold;
(j) removing the lens from the mold;
(k) hydrating the ophthalmic lens; and
(l) packaging the ophthalmic lens.

2. (Cancelled)

3. (Previously amended) A method for making an ophthalmic lens according to claim 1, wherein the melt-processable polymer has a glass transition temperature (T_g), a flow temperature (T_F), and a degradation temperature (T_D), wherein the sample has a volume between the first volume and the second volume.

4. (Previously amended) The method for making an ophthalmic lens according to claim 3, wherein the extruded polymer is in the form of a wire.

5. (Original) The method for making an ophthalmic lens according to claim 4, wherein:
(1) the cutting comprises slicing the wire with a moving knife at an opening of an extrusion die through which the wire is extruded such that the pellet remains adjacent to the knife; and
(2) the depositing comprises moving the knife to a position proximate the first mold half, and pushing the pellet off the knife and into the first mold part.

6. (Original) The method for making an ophthalmic lens according to claim 5, wherein the pellet is supported by nesting the pellet in a groove or a set of tabs in the knife.

7. (Original) The method for making an ophthalmic lens according to claim 5, wherein the pellet is pushed off the knife with a means selected from the group consisting of an ejector pin, an air burst and a combination thereof.

8. (Previously amended) The method for making an ophthalmic lens according to claim 5, wherein the knife is at a temperature between 120 °C below the glass transition temperature T_g and the degradation temperature T_D.

9. (Previously amended) The method for making an ophthalmic lens according to claim 3, wherein the mold parts are independently at temperatures between 120 °C below the glass transition temperature T_g and the degradation temperature T_D of the polymer.

10. (Currently amended) A method for making an ophthalmic lens comprising
(a) providing a first mold part having a front curve molding surface for the ophthalmic lens;
(b) providing a second mold part having a back curve molding surface for the ophthalmic lens;
(c) extruding a melt-processable polymer;
(d) cutting a sample from the extruded polymer; wherein the cutting comprises moving a ribbon between a die and a punch, with the die below the ribbon and the punch above the ribbon; sliding a moveable core in the punch down against the ribbon and into the die opening, the

moveable core having a diameter less than the diameter of the die opening, thereby punching a sample out of the ribbon

(e) depositing the sample in the first mold part; wherein the depositing comprises allowing the sample to drop through the die opening and into the first mold part;

(f) moving the first and the second mold parts together to form a mold cavity between the opposing front curve molding surface and back curve molding surface with the polymer therebetween, the mold cavity defining a shape of an ophthalmic lens having a variable volume between a first volume and a second volume, the second volume being greater than the first volume, wherein the mold parts have sufficiently small clearance such that gas escapes from the mold cavity and none of the polymer escapes from the mold cavity;

(g) squeezing the mold parts together with a predetermined force; and

(h) allowing the polymer to solidify and form a lens, wherein the extruded polymer is in the form of a ribbon and wherein the sample is in the form of a disk having a thickness between 50 microns and 5 mm; and wherein the sample volume is between 0.01% and 10% greater than the first volume.

11. (Cancelled)

12. (Previously amended) The method for making an ophthalmic lens according to claim 10, wherein the cutting further comprises clamping the ribbon between the die and punch.

13. (Previously amended) The method for making an ophthalmic lens according to claim 10, wherein the temperature of the ribbon is between 120 °C below the glass transition temperature T_g of the polymer and the degradation temperature.T_D.

14. (Previously amended) The method for making an ophthalmic lens according to claim 10, wherein the ribbon is extruded in an environment where the temperature of the air is maintained between 50 °C below the glass transition temperature T_g of the polymer and 50 °C above the degradation temperature.T_D.

15. (Previously amended) The method for making an ophthalmic lens according to claim 10, further comprising pumping the polymer from an extruder to an extrusion die with a melt pump.

16. (Original) The method for making an ophthalmic lens according to claim 15, wherein a closed-loop pressure feedback control system is coupled with the melt pump.

17. (Previously amended) The method of molding an ophthalmic lens according to claim 10, wherein the melt-processable polymer is hydrophilic.

18. (Previously amended) The method of molding an ophthalmic lens according to claim 10, wherein the melt-processable polymer forms a hydrogel when hydrated.

19. (Previously amended) The method of molding an ophthalmic lens according to claim 10, wherein the polymer contains latent crosslinking groups, and wherein the temperature of the mold, the applied force, and the duration of the squeezing are sufficient to crosslink the polymer.

20. (Original) The method of molding an ophthalmic lens according to claim 19, wherein the temperature of the mold is greater than the temperature at which the polymer is extruded.

21. (Cancelled)

22. (Previously amended) The method for making an ophthalmic lens according to claim 10, further comprising a cyclic process, the cyclic process comprising: depositing a second sample of polymer in the mold; wherein the steps are repeated to mold a plurality of samples in the mold.

23. (Original) The method for making an ophthalmic lens according to claim 22, wherein the cyclic process further comprises ensuring the mold is empty and clean after removing the lens such that the second sample of polymer is deposited into an empty clean mold.

24. (Original) The method for making an ophthalmic lens according to claim 22, wherein the plurality of samples has an average volume with a standard deviation σ and wherein the average volume is between the first volume plus σ and the second volume minus σ.

25. (Previously amended) A method for molding an ophthalmic lens according to claim 10, wherein the extruded polymer is in the form of a ribbon, wherein the sample has a third volume, wherein the melt-processable polymer has a glass transition temperature (T_g), a flow temperature (T_F), and a degradation temperature (T_D), wherein the mold cavity comprises an ophthalmic lens mold cavity and a flange mold cavity, the ophthalmic lens mold cavity having a fourth volume being less than the third volume, the flange mold cavity being located around the periphery of the ophthalmic lens mold cavity.

26. (Original) The method of molding an ophthalmic lens according to claim 25, wherein the sample is in the form of a disk having a thickness between 0.05 mm and 1.0 mm and/or a diameter greater than the diameter of the ophthalmic lens mold cavity.

27. (Original) The method for molding an ophthalmic lens according to claim 25, wherein the moving comprises clamping at least a portion of the sample in the periphery of the ophthalmic lens mold cavity.

28. (Original) The method for molding an ophthalmic lens according to claim 25, wherein the portion of the sample outside the ophthalmic lens mold cavity forms a flange in the flange mold cavity.

29. (Original) The method for molding an ophthalmic lens according to claim 28, further comprising removing the flange from the ophthalmic lens.

30. (Original) The method for molding an ophthalmic lens according to claim 25, wherein the mold parts are squeezed together and then opened in less than 500 seconds.

31. (Previously amended) The method for molding an ophthalmic lens according to claim 25, wherein the mold parts are independently at temperatures between 120 °C below the glass transition temperature T_g and the degradation temperature T_D.

32. (Previously amended) The method for molding an ophthalmic lens according to claim 10, wherein the step of allowing the polymer to solidify and form a lens comprises decreasing the temperature of the mold.

33. (Original) The method for molding an ophthalmic lens according to claim 32, wherein at least 90% of the predetermined force is equilibrated by the sample in the mold cavity to stop the mold parts from relative movement.

34. (Previously amended) The method for molding an ophthalmic lens according to claim 10, further comprising: separating one of the two mold parts from the other mold part having the molded ophthalmic lens adhered thereto; pressing a flexible pad into frictional contact with the ophthalmic lens; applying a force to the lens by way of the flexible pad to move the flexible pad to separate the ophthalmic lens from the molding surface; and applying a vacuum to a suction port around the pad thereby picking up the lens.

35. (cancelled).

36. (cancelled)

37. (cancelled).

38. (Cancelled).

39. (Cancelled).

40. (Cancelled).

41. (Cancelled).

42. (Cancelled).

43. (Cancelled).

44. (Cancelled).

45. (Cancelled).

46. (Cancelled).

47. (Cancelled).

48. (Previously added) The method for making an ophthalmic lens according to claim 1, further comprising pumping the polymer from an extruder to an extrusion die with a melt pump.

49. (Previously added) The method of molding an ophthalmic lens according to claim 1, wherein the melt-processable polymer is hydrophilic.

50. (Previously added) The method of molding an ophthalmic lens according to claim 1, wherein the melt-processable polymer forms a hydrogel when hydrated.

51. (Previously added) The method of molding an ophthalmic lens according to claim 1, wherein the polymer contains latent crosslinking groups, and wherein the temperature of the mold, the applied force, and the duration of the squeezing are sufficient to crosslink the polymer.

52. (Previously added) The method for molding an ophthalmic lens according to claim 1, wherein the sample volume is between 0.01% and 10% greater than the first volume.

53. (Previously added) The method for making an ophthalmic lens according to claim 1, further comprising a cyclic process, the cyclic process comprising: depositing a second sample of polymer in the mold; wherein the steps are repeated to mold a plurality of samples in the mold.

54. (Previously added) The method for molding an ophthalmic lens according to claim 1, wherein the step of allowing the polymer to solidify and form a lens comprises decreasing the temperature of the mold.

55. (Previously added) The method for molding an ophthalmic lens according to claim 1, wherein the step of removing the lens from the mold comprises: separating one of the two mold parts from the other mold part having the molded ophthalmic lens adhered thereto; pressing a flexible pad into frictional contact with the ophthalmic lens; applying a force to the lens by way of the flexible pad to move the flexible pad to separate the ophthalmic lens from the molding surface; and applying a vacuum to a suction port around the pad thereby picking up the lens.